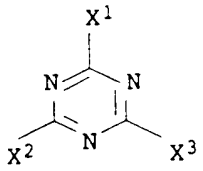
We claim:

1. A method of using modified melamine resin fibers obtainable by condensational mixture comprising

(A) from 90 to 99.9 mol% of a mixture comprising
(a) from 30 to 99.9 mol% of melamine and
(b) from 1.0 to 70 mol% of a substituted melamine of the general formula I



(I)

where X^1, X^2 and X^3 are each selected from $-NH_2$, $-NHR^1$ and $-NR^1R^2$, subject to the proviso that X^1, X^2 and X^3 are not all $-NH_2$, and R^1 and R^2 are independently selected from hydroxy-C_2-C_{20}-alkyl, hydroxy-C_2-C_4-alkyl-(oxa-C_2-C_4-alkyl)$_n$, where n is from 1 to 5, and amino-C_2-C_{12}-alkyl, or mixtures of melamines of formula I, and

(B) from 0.1 to 10 mol%, based on (A) and (B), of a compound selected from phenols which are unsubstituted or substituted by radicals selected from C_1-C_9-alkyl and hydroxyl, C_1-C_4-alkanes substituted by two or three phenol groups, di(hydroxyphenyl) sulfones and mixtures thereof,

with formaldehyde or formaldehyde-supplying compounds in a molar ratio of melamines to formaldehyde within the range from 1:1.15 to 1:4.5, as and in thermal and/or acoustic insulating material.

2. A method as claimed in claim 1 for use together with polyalkylene terephthalate fibers.

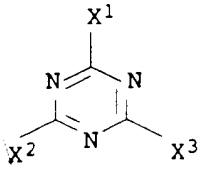
3. An insulating material comprising

a) from 5 to 95 % by weight of melamine resin fibers, and
b) from 5 to 95 % by weight of polyalkylene terephthalate fibers.

4. An insulating material as claimed in claim 3, further comprising c) up to 30% by weight of further fibers and/or d) up to 20% by weight of additives.

5. An insulating material as claimed in either of the preceding claims, wherein the melamine resin fibers are modified and obtainable by condensational mixture comprising

(A) from 90 to 99.9 mol% of a mixture comprising
  (a) from 30 to 99.9 mol% of melamine and
  (b) from 1.0 to 70 mol% of a substituted melamine of the general formula I



(I)

where X^1, X^2 and X^3 are each selected from $-NH_2$, $-NHR^1$ and $-NR^1R^2$, subject to the proviso that X^1, X^2 and X^3 are not all $-NH_2$, and R^1 and R^2 are independently selected from hydroxy-C_2-C_{20}-alkyl, hydroxy-C_2-C_4-alkyl-(oxa-C_2-C_4-alkyl)$_n$, where n is from 1 to 5, and amino-C_2-C_{12}-alkyl, or mixtures of melamines of formula I, and

(B) from 0.1 to 10 mol%, based on (A) and (B), of a compound selected from phenols which are unsubstituted or substituted by radicals selected from C_1-C_9-alkyl and hydroxyl, C_1-C_4-alkanes substituted by two or three phenol groups, di(hydroxyphenyl) sulfones and mixtures thereof,

with formaldehyde or formaldehyde-supplying compounds in a molar ratio of melamines to formaldehyde within the range from 1:1.15 to 1:4.5.

6. An insulating material as claimed in any of preceding claims, wherein the polyalkylene terephthalate fibers b) are selected from polyethylene terephthalate fibers, polybutylene terephthalate fibers and mixtures thereof.

7. An insulating material as claimed in claim 6, wherein the polyethylene terephthalate fibers b) are bicomponent fibers having a core/sheath construction comprising a polyester core and a copolyester sheath.

8. An insulating material as claimed in claim 7, wherein the melting temperature of the core of the bicomponent fibers b) is within the range from 200 to 300°C, preferably within the range from 230 to 280°C, and the melting temperature of the sheath is within the range from 80 to 150°C, preferably within the range from 100 to 130°C.

9. An insulating material as claimed in either of claims 7 and 8, wherein the individual fiber linear density of the bicomponent fibers b) is within the range from 1 to 20 dtex, preferably within the range from 2 to 15 dtex.

10. A process for producing an insulating material as claimed in any of the preceding claims, which comprises

i) the components a), b) and optionally c) and/or d), optionally after a pretreatment, being mixed, optionally carded and laid down to form a mat,
ii) the mat being heated, and
iii) the tempered mat being optionally cut to size and/or coated.

11. A process as claimed in claim 10, wherein component b) is a core-sheath bicomponent fiber as set forth in any of claims 7 to 9 and the temperature in step ii) is higher than the melting temperature of the sheath and lower than the melting temperature of the core.

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